

1. A system for detecting the presence of an active connection to a data transmission network, including a network medium, to a computing device, the system comprising:

means for making a connection to the network medium;

5 means for comparing any signal found on the network medium to a predetermined standard; and

means for signaling the computing device when any signal found on the network medium is an active network signal.

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2. A system as defined in claim 1 wherein the means for making a connection to the network medium comprises;

means for DC filtering of the signal;

means for providing electrical isolation; and

15 means for providing a DC bias.

3. A system as defined in claim 1 wherein the means for comparing any signal found on the network medium to a predetermined standard comprises:

20 means for providing a reference voltage; and

means for comparing the signal to the reference  
voltage.

4. A system as defined in claim 1 wherein the  
5 predetermined standard comprises a DC reference voltage.

5. A system as defined in claim 1 further comprising a  
network adaptor card and wherein the means for making a  
connection to the network medium, the means for comparing any  
10 signal found on the network medium to a predetermined  
standard; and the means for signaling the computing device are  
all located on the network adaptor card.

6. A system as defined in claim 5 wherein the network  
15 adaptor card comprises a PC Card.

7. A system as defined in claim 5 wherein the network  
adaptor card is located within the computing device.

20 8. A system as defined in claim 1 wherein the network  
medium comprises a positive signal electrical conductor and a

negative signal electrical conductor and the means for  
comparing any signal found on the network medium to a  
predetermined standard compares the signals regardless of the  
connection orientation of the positive signal electrical  
5 conductor and the negative signal electrical conductor.

9. A system as defined in claim 1 wherein the means for  
comparing any signal found on the network medium to a  
predetermined standard comprises a first comparator and a  
10 second comparator.

10. A system as defined in claim 1 wherein the means for  
comparing any signal found on the network medium to a  
predetermined standard comprises a first comparator and a  
15 second comparator, the first and the second comparators  
comprising open drain comparators having their outputs  
connected together.

11. A system as defined in claim 1 wherein the means for  
20 making a connection to the network medium and the means for  
comparing any signal found on the network medium to a

predetermined standard do not significantly load the network medium when connected thereto.

12. A system as defined in claim 1 wherein the means for signaling the computing device when any signal found on the network medium is an active network signal comprises a output shaping circuit providing an output signal indicating when an active network signal is present on the network medium.

13. A system as defined in claim 1 wherein the means for signaling the computing device when any signal found on the network medium is an active network signal comprises an output shaping circuit having an RC time constant of about 0.1ms.

14. A system as defined in claim 1 wherein the data transmission network complies to an Ethernet network standard.

15. A system as defined in claim 14 wherein the network medium comprises twisted pair cable.

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16. A system as defined in claim 14 wherein the network  
medium comprises coaxial cable.

17. A system as defined in claim 14 wherein the network  
5 medium comprises fiber optic cable.

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18. A system for indicating the presence of a data transmission network cable carrying an active network signal connected to a computing device, the system comprising:

— means for connecting to a network cable;

5            means for DC filtering any signal present on the network cable;

            means for DC biasing any signal present on the network cable;

            means for providing a reference voltage;

10           means for comparing any signal present on the network cable with the reference voltage; and

            — means for signaling the computing device when any signal present on the network cable meets the reference voltage for at least a predetermined period of time and  
15           indicating that the signal present on the network cable is an active network signal.

19. A system as defined in claim 18 further comprising a network adaptor card and wherein the means for connecting,  
20           the means for DC filtering, the means for DC biasing, the means for providing a reference voltage, the means for

comparing, and the means for signaling are all located on the network adaptor card.

20. A system as defined in claim 19 wherein the network  
5 adaptor card comprises a PC Card.

21. A system as defined in claim 19 wherein the network adaptor card is located within the computing device.

10 22. A system as defined in claim 18 wherein the network cable comprises a positive signal electrical conductor and a negative signal electrical conductor and the means for comparing any signals compares the signals regardless of the connection orientation of the positive signal electrical  
15 conductor and the negative signal electrical conductor.

23. A system as defined in claim 18 wherein the means for comparing any signal comprises a first comparator and a second comparator.

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24. A system as defined in claim 18 wherein the means  
for comparing any signal comprises a first comparator and a  
second comparator, the first and the second comparators  
comprising open drain comparators having their outputs  
5 connected together.

25. A system as defined in claim 18 wherein the means  
for connecting to a network cable presents a high impedance to  
the network cable.

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26. A system as defined in claim 18 wherein the means  
for signaling the computing device an RC circuit having a time  
constant of about 0.1ms.

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27. A system as defined in claim 18 wherein the active  
network signal comprises a 10 Mbps Ethernet signal.

28. A system as defined in claim 18 wherein the active  
network signal comprises a 100 Mbps Ethernet signal.

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29. A system as defined in claim 18 wherein the network  
cable comprises twisted pair cable.

30. A system as defined in claim 18 wherein the network  
5 cable comprises coaxial cable.

31. A system as defined in claim 18 wherein the network  
cable comprises fiber optic cable.

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32. A method for detecting the presence of an active connection to a data transmission network, including a network medium, to a computing device, the method comprising the steps of:

5           making a connection to the network medium;  
            comparing any signal found on the network medium to  
            a predetermined standard; and  
            signaling the computing device when any signal found  
            on the network medium is an active network signal.

10           33. A method as defined in claim 32 wherein the step of  
            comparing any signal found on the network medium to a  
            predetermined standard comprises:

            providing a reference voltage; and  
15           comparing the signal to the reference voltage.

            34. A method as defined in claim 32 wherein the step of  
            making a connection to the network medium comprises the step  
            of making a connection to the network medium without  
20           significantly loading the network medium.

35. A method as defined in claim 32 wherein the data transmission network complies with an Ethernet network standard.

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